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 — 国際調査報告書  
 — 請求の範囲の補正の期限前の公開であり、補正書受領の際には再公開される。
- 2文字コード及び他の略語については、定期発行される各PCTガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

(54) Title: OPTICAL RESIN LENS AND METHOD FOR PRODUCING OPTICAL RESIN MATERIAL

(54) 発明の名称: 光学用樹脂レンズ及び光学用樹脂材料の製造方法

(57) Abstract: Disclosed is an optical resin lens with high durability whose optical characteristics do not deteriorate even when it is irradiated with a laser or other optical energy for a long time. Also disclosed is a method for producing an optical resin material. The optical resin lens is characterized by comprising a polymer which is obtained by a production process including a step for polymerizing an olefin using a catalyst composed of a titanium halide and an organic aluminum represented by the general formula:  $R_nAlX_{3-n}$  (wherein n satisfies  $1 < n \leq 2$ , R represents a hydrocarbon group, and X represents a halogen atom).

(57) 要約: 本発明の目的は、長時間のレーザ照射またはその他の光エネルギー照射条件下でも光学特性が劣化しない高耐久性を示す光学用樹脂レンズ及び光学樹脂材料の製造方法を提供することである。ハロゲン化チタン及び一般式  $R_nAlX_{3-n}$  (式中、nは  $1 < n \leq 2$  を表し、Rは炭化水素基、Xはハロゲン原子を表す。) で表される有機アルミニウムからなる触媒を用いてオレフィンを重合する工程を有する製造方法により得られる重合体を有すること特徴とする光学用樹脂レンズ。

WO 2005/081019 A1

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2005/002155

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl.<sup>7</sup> G02B1/04, C08F4/642, 4/654, 8/04, 32/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl.<sup>7</sup> G02B1/04, C08F4/642, 4/654, 8/04, 32/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Jitsuyo Shinan Toroku Koho	1996-2005
Kokai Jitsuyo Shinan Koho	1971-2005	Toroku Jitsuyo Shinan Koho	1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 7-324108 A (Nippon Zeon Co., Ltd.), 12 December, 1995 (12.12.95), Full text; all drawings; particularly, Claims 1, 2; Par. Nos. [0016] to [0018], [0027] to [0030] & US 5061771 A & DE 3937865 A & FR 2639046 A	1-14, 17-18, 29-30 15-16, 19-28, 31
Y	JP 53-3356 B2 (Soruvuei and Co.), 06 February, 1978 (06.02.78), Full text; all drawings & US 4210738 A & BE 780758 A & NL 7202988 A & DE 2213086 A & FR 2130231 A & CH 543546 A & GB 1391067 A & GB 1391068 A	3-4, 19-20

☒ Further documents are listed in the continuation of Box C.☐ See patent family annex.

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"&amp;" document member of the same patent family

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02 June, 2005 (02.06.05)Date of mailing of the international search report  
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International application No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 4-168109 A (Mistui Sekiyu Kagaku Kabushiki Kaisha), 16 June, 1992 (16.06.92), Full text; all drawings; particularly, Claims; page 2, lower right column to page 3, lower left column, line 20 (Family: none)	5-6, 21-22
Y	JP 2003-119213 A (Idemitsu Petrochemical Co., Ltd.), 23 April, 2003 (23.04.03), Full text; all drawings; particularly, Claims 1, 4, 7 to 8 (Family: none)	7-8, 23-24
Y	JP 8-3213 A (Mitsubishi Chemical Corp.); 09 January, 1996 (09.01.96), Full text; all drawings; particularly, Claim 1; Par. Nos. [0017], [0020] to [0023] (Family: none)	9-10, 25-26
Y	JP 1-170605 A (Mitsui Toatsu Chemicals, Inc.), 05 July, 1989 (05.07.89), Full text; all drawings; particularly, Claims (Family: none)	11-12, 27-28
Y	JP 2003-160620 A (JSR Corp.), 03 June, 2003 (03.06.03), Full text; all drawings; particularly, Par. No. [0052] & EP 1293521 A2 & US 2003/0119961 A1 & US 6844403 B2 & KR 2003023538 A & TW 570934 A	15, 31
Y	JP 2002-303788 A (Konica Corp.), 18 October, 2002 (18.10.02), Full text; all drawings; particularly, Par. Nos. [0031] to [0033] & EP 1199717 A2 & WO 02/33700 A2 & WO 02/37484 A2 & US 2002/0135891 A1 & AU 200194248 A & KR 2002030259 A & CN 1351337 A & CN 1349121 A & TW 561473 A & TW 567483 A	16